# Evaluating Rules in the Fed's Report and Measuring Deviations

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## **Policy Rules**



# **Smets and Wouters (2007) Model**

	in sec	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
	1	29.97	29.45	29.40	29.76	30.46	31.45	32.69	34.15	35.80	37.61	1
	0.9	29.94	29.48	29.58	30.14	31.08	32.36	33.91	35.70	37.68	39.84	0.9
	0.8	29.95	29.60	29.89	30.72	32.00	33.64	35.59	37.79	40.20	42.78	0.8
ient, α	0.7	30.03	29.83	30.41	31.62	33.34	35.47	37.94	40.67	43.62	46.73	0.7
coeffic	0.6	30.23	30.27	31.28	33.02	35.36	38.16	41.31	44.74	48.38	52.18	0.6
on gap	0.5	30.62	31.07	32.72	35.27	38.49	42.22	46.32	50.68	55.23	59.90	0.5
Inflati	0.4	31.38	32.56	35.26	39.05	43.59	48.66	54.07	59.69	65.44	71.23	0.4
	0.3	32.95	35.51	40.06	45.87	52.45	59.49	66.76	74.10	81.41	88.62	0.3
	0.2	36.69	42.21	50.23	59.51	69.35	79.32	89.17	98.76	107.99	116.84	0.2
	0.1	48.82	61.39	76.24	91.45	106.16	120.02	132.92	144.85	155.85	165.99	0.1
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	

# **FRB-US Model**

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
	1	70.54	68.39	66.60	65.14	63.97	63.05	62.36	61.88	61.57	61.44	1
	0.9	70.04	67.86	66.05	64.58	63.40	62.49	61.80	61.33	61.04	60.92	0.9
	0.8	69.57	67.36	65.52	64.04	62.85	61.95	61.27	60.81	60.53	60.42	0.8
ient, α	0.7	69.13	66.88	65.02	63.52	62.33	61.43	60.76	60.31	60.04	59.95	0.7
coeffic	0.6	68.72	66.42	64.53	63.02	61.83	60.93	60.28	59.83	59.58	59.50	0.6
n gap i	0.5	68.34	65.99	64.08	62.55	61.36	60.46	59.82	59.39	59.15	59.09	0.5
Inflatio	0.4	67.99	65.59	63.65	62.10	60.91	60.02	59.39	58.97	58.75	58.70	0.4
	0.3	67.67	65.22	63.25	61.69	60.50	59.61	58.98	58.58	58.37	58.33	0.3
	0.2	67.39	64.88	62.88	61.31	60.11	59.23	58.61	58.22	58.02	58.00	0.2
	0.1	67.14	64.58	62.54	60.96	59.76	58.88	58.27	57.89	57.71	57.69	0.1
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	

# **Smets and Wouters (2007) Model**

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
	1	29.97	29.45	29.40	29.76	30.46	31.45	32.69	34.15	35.80	37.61	1
	0.9	29.94	29.48	29.58	30.14	31.08	32.36	33.91	35.70	37.68	39.84	0.9
	0.8	29.95	29.60	29.89	30.72	32.00	33.64	35.59	37.79	40.20	42.78	0.8
ient, α	0.7	30.03	29.83	30.41	31.62	33.34	35.47	37.94	40.67	43.62	46.73	0.7
coeffic	0.6	30.23	30.27	31.28	33.02	35.36	38.16	41.31	44.74	48.38	52.18	0.6
on gap	0.5	30.62	31.07	32.72	35.27	38.49	42.22	46.32	50.68	55.23	59.90	0.5
Inflati	0.4	31.38	32.56	35.26	39.05	43.59	48.66	54.07	59.69	65.44	71.23	0.4
	0.3	32.95	35.51	40.06	45.87	52.45	59.49	66.76	74.10	81.41	88.62	0.3
	0.2	36.69	42.21	50.23	59.51	69.35	79.32	89.17	98.76	107.99	116.84	0.2
	0.1	48.82	61.39	76.24	91.45	106.16	120.02	132.92	144.85	155.85	165.99	0.1
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	

# **Top Quintile SW Rules in FRB-US Model**

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
	1	70.54	68.39	66.60	65.14	63.97	63.05	62.36	61.88	61.57	61.44	1
	0.9	70.04	67.86	66.05	64.58	63.40	62.49	61.80	61.33	61.04	60.92	0.9
	0.8	69.57	67.36	65.52	64.04	62.85	61.95	61,27	60.81	60.53	60.42	0.8
ient, α	0.7	69.13	66.88	65.02	63.52	62.33	61.43	60.76	60.31	60.04	59.95	0.7
coeffic	0.6	68.72	66.42	64.53	63.02	61.83	60.93	60.28	59.83	59.58	59.50	0.6
deg ue	0.5	68.34	65.99	64.08	62.55	61.36	60.46	59.82	59.39	59.15	59.09	0.5
Inflatic	0.4	67.99	65.59	63.65	62.10	60.91	60.02	59.39	58.97	58.75	58,70	0.4
	0.3	67.67	65.22	63.25	61.69	60.50	59.61	58.98	58.58	58.37	58.33	0.3
	0.2	67.39	64.88	62.88	61.31	60.11	59.23	58.61	58.22	58.02	58.00	0.2
	0.1	67.14	64.58	62.54	60.96	59.76	58.88	58.27	57.89	57.71	57.69	0.1
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	

## **FRB-US Model**

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	-
	1	70.54	68.39	66.60	65.14	63.97	63.05	62.36	61.88	61.57	61.44	1
	0.9	70.04	67.86	66.05	64.58	63.40	62.49	61.80	61.33	61.04	60.92	0.9
R	D.8	69.57	67.36	65.52	64.04	62.85	61.95	61.27	60.81	60.53	60.42	0.8
ient, α	0.7	69.13	66.88	65.02	63.52	62.33	61.43	60.76	60.31	60.04	59.95	0.7
coeffici	D.6	68.72	66.42	64.53	63.02	61.83	60.93	60.28	59.83	59.58	59.50	0.6
n gap o	D.5	68.34	65.99	64.08	62.55	61.36	60.46	59.82	59.39	59.15	59.09	0.5
nflatio	0.4	67.99	65.59	63.65	62.10	60.91	60.02	59.39	58.97	58.75	58.70	0.4
	0.3	67.67	65.22	63.25	61.69	60.50	59.61	58.98	58.58	58.37	58.33	0.3
	0.2	67.39	64.88	62.88	61.31	60.11	59.23	58.61	58.22	58.02	58.00	0.2
	0.1	67.14	64.58	62.54	60.96	59.76	58.88	58.27	57.89	57.71	57.69	0.1
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	

#### **Top Quintile FRB-US Rules in SW Model**

	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	
1	29.97	29.45	29.40	29.76	30.46	31.45	32.69	34.15	35.80	37.61	1
0.9	29.94	29.48	29.58	30.14	31.08	32.36	33.91	35.70	37.68	39.84	0.9
0.8	3 29.95	29.60	29.89	30.72	32.00	33.64	35.59	37.79	40.20	42.78	0.8
0.	30.03	29.83	30.41	31.62	33.34	35.47	37.94	40.67	43.62	46.73	0.7
0.0	30.23	30.27	31.28	33.02	35.36	38.16	41.31	44.74	48.38	52.18	0.6
0.	30.62	31.07	32.72	35.27	38.49	42.22	46.32	50.68	55.23	59.90	0.5
0.4	31.38	32.56	35.26	39.05	43.59	48.66	54.07	59.69	65.44	71.23	0.4
0.	32.95	35.51	40.06	45.87	52.45	59.49	66.76	74.10	81.41	88.62	0.3
0.2	36.69	42.21	50.23	59.51	69.35	79.32	89.17	98.76	107.99	116.84	0.2
0.	48.82	61.39	76.24	91.45	106.16	120.02	132.92	144.85	155.85	165.99	0.1
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1

#### **Deviations from the Original Taylor rule**



#### **Absolute Deviations from the Original Taylor rule**



#### **Loss Ratios: Time-Varying r\*, Output Gap,** $\pi$ **\*=2%**

		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
	1.0	3.29	3.17	3.33	3.46	3.44	3.87	3.84	4.33	5.59	4.79	1.0
	0.9	3.04	3.11	3.11	3.30	3.29	2.96	3.39	3.33	3.63	3.50	0.9
	0.8	2.53	2.54	2.63	2.76	3.16	3.10	3.10	3.31	4.12	3.46	0.8
nt, α	0.7	2.54	2.56	2.67	2.92	3.10	3.27	3.54	2.93	3.06	2.62	0.7
efficie	0.6	2.27	2.37	2.54	2.73	3.03	3.06	3.12	2.76	2.25	2.06	0.6
gap co	0.5	1.93	2.00	2.07	2.56	2.82	2.93	3.01	2.39	2.15	1.82	0.5
lation	0.4	1.88	2.08	2.11	2.36	2.47	2.40	2.36	2.26	2.23	1.85	0.4
Inf	0.3	1.98	1.87	1.82	1.96	1.99	1.97	2.09	1.99	1.95	1.48	0.3
	0.2	1.65	1.74	1.75	1.83	1.79	1.80	1.67	1.80	1.75	1.43	0.2
	0.1	1.13	1.21	1.26	1.26	1.39	1.38	1.28	1.37	1.58	1.31	0.1
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	